AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-16. Cancelled.

17. (Currently Amended) A method comprising:

at a receiver diversity antenna arrangement that comprises at least two antennas that are spaced apart and/or that have different polarizations, each antenna receiving a radio frequency (RF) signal transmitted from the same transmitter, where each RF signal received at each of the spaced apart antennas is at the same frequency and carries the same information;

converting one or more received antenna signals into a corresponding number of different frequency signals by mixing with a first set of a corresponding number of reference signals, where the one or more converted antenna signals is converted to a non-used frequency not used by ~~offset in frequency from at least one of~~ the other received signals ~~by a first frequency offset greater than a bandwidth of the transmitted signal~~;

forwarding the diversity signals received on all the antennas of the receiver diversity antenna arrangement, of which one or more of the received diversity signals have been frequency converted to the non-used frequency ~~with the first frequency offset~~ and provided to a radio base station on a single feeder such that a number of feeders required between the radio base station and the receiver diversity antenna arrangement is reduced; and

diversity processing two or more of the forwarded diversity signals to obtain a single enhanced received signal corresponding to the transmitted signal.

18. (Previously Presented) The method recited in claim 17, wherein the diversity antenna arrangement comprises n antennas, said method comprising the steps of:

converting all received antenna signals except one, and

forwarding the non-converted antenna signal together with all frequency-converted signals to the radio base station on the single feeder, thus providing n-way diversity with a single feeder.

19. (Previously Presented) The method recited in claim 17, wherein the diversity antenna arrangement comprises n antennas, said method comprising the step of converting all received antenna signals and forwarding them to the radio base station on the single feeder, thus providing n-way diversity with a single feeder.

20. (Currently Amended) The method recited in claim 17, further comprising: converting the frequency-converted signals to other frequencies by mixing them with a second set of reference signals ~~associated with a second frequency offset~~ in order to obtain another set of frequency-converted signals which are forwarded to the base station on the single feeder.

21. (Currently Amended) The method recited in claim 17, wherein the diversity antenna arrangement comprises a first and a second antenna, said method comprising the steps of:

converting the antenna signal on the second antenna ~~with the first frequency offset~~ into an intermediate (IF) signal at the non-used frequency, and

forwarding the IF signal together with the non-converted antenna signal on the first antenna to the radio base station on a single feeder, thus providing 2-way diversity with a single feeder.

22. (Currently Amended) The method recited in claim 17, wherein there are two diversity antenna arrangements, one comprising a first and a second antenna, the other comprising a third and fourth antenna, said method comprising the steps of:

converting the RF signals from the second and fourth antennas ~~with the first frequency offset~~ into first and second intermediate frequency (IF) signals, both of the same intermediate frequency;

forwarding the non-converted antenna signal on the first antenna together with the first IF signal on a first feeder to the base station; and

forwarding the non-converted antenna signal on the third antenna together with the second IF signal on a second feeder to the base station, thus providing 4-way diversity with two feeders.

23. (Previously Presented) The method recited in 17, further comprising the steps of:

converting, at the radio base station, the frequency-converted signals into other frequency-converted signals, all on the same intermediate frequency, by mixing them with a set of reference signals, and

subjecting the twice frequency converted signals on the common intermediate frequency to the diversity signal processing.

24. (Currently Amended) A receiver diversity antenna arrangement, comprising:

at least two diversity antennas that are spaced apart and/or that have different polarizations, each antenna being adapted for reception of radio frequency (RF) signal transmitted from the same transmitter, where each RF signal is at the same frequency and carries the same information;

one or more frequency converters each adapted to convert a respective antenna signal ~~with a respective frequency offset~~ to a respective, different, and non-used frequency ~~signal~~ by mixing it with a predetermined frequency~~, where each respective different frequency signal is offset in frequency from at least one of the other received signals by its respective frequency offset which is greater than a bandwidth of the transmitted signal~~;

a combiner for combining the signals received on the antennas, of which signals one or more have been frequency converted, to form a composite signal which is forwarded to a radio base station on a single feeder; and

a diversity processor for diversity processing two or more of the forwarded diversity signals to obtain a single enhanced received signal corresponding to the transmitted signal.

25. (Previously Presented) The receiver diversity antenna arrangement recited in claim 24, wherein a signal from a diversity antenna follows a diversity branch, the receiver diversity antenna arrangement further comprising providing a frequency converter in each diversity branch except one.

26. (Previously Presented) The receiver diversity antenna arrangement recited in claim 24, wherein a signal from a diversity antenna follows a diversity branch, receiver diversity

antenna arrangement further comprising providing a frequency converter in each diversity branch.

27. (Previously Presented) The receiver diversity antenna arrangement recited in claim 24, wherein a second set of frequency converters are adapted to convert the frequency-converted signals into another set of frequency-converted signals for transport to the radio base station on the single feeder.

28. (Currently Amended) The receiver diversity antenna arrangement recited in claim 24, wherein there are two diversity antennas, one of which is connected to a first duplex filter so as to provide for reception and transmitting, receiver diversity antenna arrangement further comprising:

a single frequency converter converting the antenna signal from the second antenna ~~with the corresponding frequency offset~~ to ~~an~~ non-used intermediate frequency within a full receiver band to form an IF signal,

wherein the combiner is configured to combine the original RX signal from the first antenna with the IF signal into a composite signal, and the single feeder is configured to forward the composite signal to the base station, thus providing 2-way diversity with one feeder.

29. (Previously Presented) The receiver diversity antenna arrangement recited in claim 24, further comprising:

a duplicate diversity antenna arrangement to provide a composite diversity antenna arrangement comprising four antennas and two feeders, each antenna arrangement comprising a respective single feeder, thus providing 4-way diversity with two feeders.

30. Canceled

31. (Previously Presented) A radio base station comprising a receiver diversity antenna arrangement according to claim 24.

32. (Previously Presented) A site comprising a radio base station (RBS) coupled to at least one tower-mounted unit (TMA) via a single feeder and including a receiver diversity antenna arrangement according to claim 24.

33. (Previously Presented) The method in claim 17, wherein the two antennas are spaced apart and each of the two spaced apart antennas has a different polarization.

34. (Previously Presented) The receiver diversity antenna arrangement in claim 24, wherein the two antennas are spaced apart and each of the two spaced apart antennas has a different polarization.